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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/450,584	11/30/1999	SHIGERU TSUKIMURA	046601-5034	7883
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MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			EXAMINER POKRZYWA, JOSEPH R	
			ART UNIT 2622	PAPER NUMBER
DATE MAILED: 11/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/450,584

Applicant(s)

TSUKIMURA, SHIGERU

Examiner

Joseph R. Pokrzywa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 8/23/05, and has been entered and made of record. Currently, **claims 1-9** are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-3, and 6-9** are rejected under 35 U.S.C. 102(e) as being anticipated by Birnbaum *et al.* (U.S. Patent Number 5,923,821).

Regarding **claim 1**, Birnbaum discloses an image processing device (see Fig. 5) comprising an input part to which image data represented by a plurality of colors including black is input (see Figs. 1 and 5, column 4, line 53-column 5, line 29, and column 7, lines 47-column 8, line 29), a branching unit that identifies a type of image data (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), a black area detector that detects a black area in the image data identified by the branching unit (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), an image interpreting unit that sequentially interprets the image data detected by the black area detector regardless of contents

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of the image data in a background of the black area (see Figs. 1 and 4, column 9, line 51-column 11, line 1), and an output part that adds color materials, except a black material, of a predetermined amount to the black area and outputs the color materials and the black material (see Fig. 1, and column 8, lines 30-52, and column 9, line 51-column 10, line 38).

Regarding *claim 2*, Birnbaum discloses an image processing device (see Fig. 5) comprising an input part to which image data represented by a plurality of colors including black is input (see Figs. 1 and 5, column 4, line 53-column 5, line 29, and column 7, lines 47-column 8, line 29), a branching unit that identifies a type of image data (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), a black area detector that detects a black area in the image data identified by the branching unit (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), an image interpreting unit that sequentially interprets the image data detected by the black area detector regardless of contents of the image data in a background of the black area (see Figs. 1 and 4, column 9, line 51-column 11, line 1), an edge detector that detects an edge of the black area (see Figs. 2 and 3, column 9, line 51-column 10, line 38), and an output part that adds color materials, except a black material, of an amount according to colors in the periphery of the edge to the edge, adds the color materials, except the black material, of a predetermined amount to the black area except the edge, and outputs the color materials and the black material (see Figs. 1-3, column 8, lines 30-52, and column 9, line 51-column 10, line 38).

Regarding *claim 3*, Birnbaum discloses the device discussed above in claim 2, and further teaches of an adjuster that adjusts the amount of the color materials except the black material added to the edge in case a total amount of the color materials and the black material to

be output to the edge exceeds a predetermined amount (see Figs. 1-4, and column 8, lines 30-52, and column 9, line 51-column 11, line 17).

Regarding *claim 6*, Birnbaum discloses an image processing method comprising the steps of inputting image data represented by a plurality of colors including black (see Figs. 1 and 5, column 4, line 53-column 5, line 29, and column 7, lines 47-column 8, line 29), identifying a type of image data (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), detecting a black area in the identified image data (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), interpreting the detected image data sequentially regardless of contents of the image data in a background of the black area (see Figs. 1 and 4, column 9, line 51-column 11, line 1), and adding color materials, except a black material, of a predetermined amount to the black area and outputs the color materials and the black material (see Fig. 1, and column 8, lines 30-52, and column 9, line 51-column 10, line 38).

Regarding *claim 7*, Birnbaum discloses an image processing device (see Fig. 5) comprising an input part to which image data represented by a plurality of colors including black is input (see Figs. 1 and 5, column 4, line 53-column 5, line 29, and column 7, lines 47-column 8, line 29), a branching unit that identifies a type of image data (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), a black area detector that detects a black area in the image data identified by the branching unit (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), an image interpreting unit that sequentially interprets the image data detected by the black area detector regardless of contents of the image data in a background of the black area (see Figs. 1 and 4, column 9, line 51-column 11, line 1), an image determination unit that determines a type of image in each area of the image

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data (see Figs. 1-3, column 9, line 51-column 10, line 38), and an output part that adds color materials, except a black material, of a predetermined amount to an area determined to hold a predetermined type by the image determination unit and detected as a black area by the black area detector and output the color materials and the black material (see Fig. 1, and column 8, lines 30-52, and column 9, line 51-column 10, line 38).

Regarding *claim 8*, Birnbaum discloses the device discussed above in claim 7, and further teaches that the output part adds color materials, except the black material, of a predetermined amount to an area determined to hold a character by the image determination unit and detected as a black area by the black area detector regardless of contents of the image data in a background of the black area and outputs the color materials and a black material (see Figs. 1-4, and column 8, lines 30-52, and column 9, line 51-column 11, line 17).

Regarding *claim 9*, Birnbaum discloses an image processing method comprising the steps of inputting image data represented by a plurality of colors including black (see Figs. 1 and 5, column 4, line 53-column 5, line 29, and column 7, lines 47-column 8, line 29), identifying a type of image data (see Fig. 1, column 7, lines 47-column 8, line 29, and column 9, line 51-column 10, line 3), interpreting the identified image data sequentially regardless of contents of the image data in a background of the black area (see Figs. 1 and 4, column 9, line 51-column 11, line 1), and adding color materials, except a black material, of a predetermined amount to an area determined to hold a predetermined image type and detected as a black area from among areas in the image data and outputting the color materials and the black material (see Fig. 1, and column 8, lines 30-52, and column 9, line 51-column 10, line 38).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 4 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Birnbaum *et al.* (U.S. Patent Number 5,923,821) in view of Dermer *et al.* (U.S. Patent Number 5,313,570, cited in the Office action dated 5/4/05).

Regarding **claim 4**, Birnbaum discloses the device discussed above in claim 1, and further teaches that the output part is based upon primary colors of black, yellow, magenta and cyan (see abstract), and an amount of each color material of the Y, M, C is output to the black area (column 6, lines 13-38). However, Birnbaum does not specifically teach if the amount of each color material of the Y, M, C is output to the black area *in a range of 10 to 40% (percentage by weight) of the amount of black material*.

Dermer discloses an image processing device (see Fig. 1) comprising an input part to which image data represented by a plurality of colors including black is input (see Fig. 1), a detector that detect boundary areas in the image data (see abstract), and an output part that adds color materials, except a black material, of a predetermined amount to the detected area regardless of contents of the image data in a background of the area and outputs the color materials and the black material (column 19, line 8-column 20, line 54). Further, Dermer teaches that the output part is based upon primary colors of black, yellow, magenta and cyan, and an amount of each color material of the Y, M, C is output to the black area in a range of 10 to 40%

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(percentage by weight) of the amount of black material (column 19, line 8-column 20, line 54, and seen in Fig. 24, whereby the output part outputs Y, M, C materials in any specified range, included within the range of 10 to 40% percentage by weight).

Birnbaum & Dermer are combinable because they are from the same field of endeavor, being printing systems that process images having input data with a plurality of colors. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the range of color material indicated by Dermer within the system of Birnbaum. The suggestion/motivation for doing so would have been that Birnbaum's system would be capable of printing more colors, since different combinations of colors, as well as tints and degreeds, can be achieved by varying the weight percentages of each ink, as recognized by Dermer in column 19, lines 8-26. Therefore, it would have been obvious to combine the teachings of Dermer with the system of Birnbaum to obtain the invention as specified in claim 4.

Regarding *claim 5*, Birnbaum and Dermer disclose the device discussed above in claim 4, and Birnbaum further teaches of a reduction unit that reduces the amount of the color material of the Y, M, C, keeping the amount of the black material in case a total amount of the color materials of K, Y, M, C exceeds a predetermined value (column 10, line 56-column 11, line 17).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (571) 272-7410. The examiner can normally be reached on Monday-Friday, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph R. Pokrzywa
Primary Examiner
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A handwritten signature in black ink, appearing to read "Joseph R. Pokrzywa", written in a cursive style.

jrp